4. (Amended) The method set forth in claim 3, wherein measurement of said resonance frequency of said electromagnetic parts feeder is performed by driving said electromagnet by said driving circuit, idling the driving by said driving circuit temporarily at said predetermined driving cycle, measuring a signal obtained from said electromagnet by its electromagnetic induction during a period of said idling, and assuming a frequency at which said signal becomes maximum as said resonance frequency.

-- 10. (New) The method set forth in claim 1, wherein said idling occurs at every predetermined driving cycle.

11. (New) The method set forth in claim 10, wherein said every predetermined driving cycle is every 50th cycle. --

REMARKS

With this Amendment, the pending claims are claims 1, 3-6, 10, and 11[1]. In the Office Action of November 15, 2002, the Examiner asserted that the incorporation by reference to a foreign application or patent is improper at page 12, lines 18-23 of the specification. The Examiner rejected claims 1, 3, and 4 under 35 U.S.C. § 112. The Examiner rejected claims 1 and 6 under 35 U.S.C. § 103 as being unpatentable over the Yagi et al. patent (U.S. Patent No. 5,472,079) in view of the Yagi patent (U.S. Patent

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

[1] The Examiner withdrew claims 7-9 from consideration.

No. 5,910,698) and the Göktürk et al. patent (U.S. Patent No. 6,133,701). The Examiner objected to claims 2-5, but stated that these claims would be allowable if rewritten in independent form to include all of the limitations of the base claim and to overcome the § 112 objections. Applicant thanks the Examiner for indicating allowable subject matter.

Specification

The Examiner objected to the incorporation by reference of the priority Japanese patent application in Applicant's specification at page 12, lines 18-23. As shown above, Applicant has deleted this paragraph. No new matter has been added by this amendment.

35 U.S.C. § 112: Claims 1, 3, and 4

The Examiner rejected claims 1, 3, and 4 for not including antecedent basis for the term "every predetermined driving cycles." As shown above, Applicant amended claim 1 to recite "a predetermined driving cycle" and then claims 3 and 4 to recite "said predetermined driving cycle." Applicant also amended claim 1 to include the article "a" before the term "magnetic field."

Applicant amended claims 1, 3, and 4 to further clarify the invention. The scope of these claims has not been narrowed, nor has new matter been added by the amendments. Applicant submits that the Examiner's § 112 rejections of claims 1, 3, and 4 have been overcome.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

35 U.S.C. § 103: Claims 1-6

Again, the Examiner stated that claim 2 would be allowable if rewritten in independent form. As shown above, Applicant has canceled claim 2, and amended claim 1 to include the limitations of canceled claim 2. No new matter has been added by these amendments. Applicant submits that amended claim 1 is in condition for allowance. Because claims 3-6 all ultimately depend from claim 1, these claims should be allowable for at least the same reasons that claim 1 is allowable. *See* M.P.E.P. § 2143.03 ("If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.") (*citing In re Fine*, 5 USPQ2d 1596 (Fed. Cir. 1988)).

New Claims 10 and 11

Applicant also added new claims 10 and 11 to recite that "said idling occurs at every predetermined driving cycle," and "said every predetermined driving cycle is every 50th cycle," respectively. No new matter has been added by these claims. Support for these claims may be found in, for example, the paragraph beginning at page 9, line 20, of Applicant's specification. Because claims 10 and 11 depend from claim 1, these claims should also be in condition for allowance.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

Conclusion

In view of the foregoing amendments and remarks, Applicant respectfully requests the reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER, L.L.P.

Dated: February 13, 2003

By: Stephanie S. Conis Gauthier
Stephanie S. Conis Gauthier
Reg. No. 40,569

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

APPENDIX
Version with markings to show changes made to claims 1, 3, and 4

1. (Amended) A method of controlling an electromagnetic parts feeder which comprises a vibrating unit provided with an electromagnet of which a magnetic field vibrates at a predetermined frequency, a driving circuit for driving said electromagnet, and a control unit for outputting a driving signal to said driving circuit to cause a predetermined driving, comprising the steps of:

idling the driving of said electromagnet temporarily at [every] a predetermined driving [cycles] cycle of said electromagnet; and

controlling vibration of said vibrating unit based on a signal obtained from a coil of said electromagnet by its electromagnetic induction during a period of said idling,

wherein said vibration of said electromagnet is controlled based on a phase difference between a waveform of said signal obtained from said electromagnet by its electromagnetic induction during said idling period and the driving signal of said driving circuit.

3. (Amended) The method set forth in claim [2] 1, wherein said controlling is performed by previously measuring a resonance frequency of said electromagnetic parts feeder, driving said electromagnet at said resonance frequency by said driving circuit, temporarily idling the driving by said driving circuit at [every] said predetermined driving [cycles] cycle, storing said phase difference between the waveform of said signal obtained from said electromagnet by its electromagnetic induction during said idling period and the driving signal of said driving circuit and said resonance frequency in a

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com

storage element, and driving said vibrating unit at the stored resonance frequency when it is driven.

4. (Amended) The method set forth in claim 3, wherein measurement of said resonance frequency of said electromagnetic parts feeder is performed by driving said electromagnet by said driving circuit, idling the driving by said driving circuit temporarily at [every] said predetermined driving [cycles] cycle, measuring a signal obtained from said electromagnet by its electromagnetic induction during a period of said idling, and assuming a frequency at which said signal becomes maximum as said resonance frequency.

FINNEGAN
HENDERSON
FARABOW
GARRETT &
DUNNER LLP

1300 I Street, NW
Washington, DC 20005
202.408.4000
Fax 202.408.4400
www.finnegan.com